Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Federal-State Board on	)	CC Docket No. 96-45 (Report to Congress)
Universal Service	)	DA 98-2
	)	

COMMENTS OF THE COMMERCIAL INTERNET EXCHANGE ASSOCIATION

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The Commercial Internet eXchange Association ("CIX"), by its attorneys, files these comments on the issues to be addressed in the Commission's Report to Congress.[1] CIX is a trade association that represents over 150 Internet Service Providers who handle over 75% of the United States' Internet traffic.[2] CIX works to facilitate global connectivity among commercial Internet service providers in the United States and throughout the world. A CIX membership list is attached hereto.

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1 Pursuant to 1998 appropriations legislation for the Departments of Commerce, Justice, and State, H.R. 2267, the Commission must make its report to Congress by April 10, 1998.

2 The views expressed herein are those of CIX, as a trade association, and are not necessarily the views of each individual member.

SUMMARY AND INTRODUCTION

The Commission has correctly interpreted and applied the statutory terms "information service" and "telecommunications service" in both its USF R&O[3] and in other rulemaking decisions to implement the Telecommunications Act of 1996 (the "1996 Act"). These statutory distinctions are key to universal service fund ("USF") implementation and, on a broader scope, they are critical to support Congressional and FCC policy for an unregulated, market-oriented Information service provider ("ISP") industry. The Commission's USF R&O was true to the plain meaning of the statute: Internet access providers do not pay directly into the USF because they, like other end-users, are not "telecommunications carriers." It is critical to understand, however, that Internet access providers, as end-users of telecommunications carriers, are ultimately bearing the burden of USF costs.

CIX also believes that the plain language of Section 254 does not direct that funds for advanced services should go only to telecommunications carriers. Rather, the statute allows schools and libraries the opportunity to select among a broader set of competing providers. In that way, schools and libraries can take advantage of market efficiencies to procure the lowest-cost, or most innovative offerings on the market, including those offered by ISPs. Moreover, Section 254 mandates "competitive neutrality." If schools and libraries were required to choose only carrier-based Internet access providers to receive USF subsidies, such a program would exclude non-carrier based Internet access providers from the market and thereby devastate today's highly competitive market for Internet services.

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3 Federal-State Joint Board on Universal Service, Report and Order, CC Dkt. No. 96-45, 12 FCC Rcd. 8776 (1996) (the "USF R&O").

DISCUSSION

I. The Commission's Implementation of the "Information Service" Definition Is True to the Plain Meaning of the 1996 Act

In CIX's view, as discussed below, the Commission has interpreted the statutory terms "information service" and "telecommunications service" in a manner consistent with the plain meaning and intent of the statute. The Commission's decisions have maintained the existing unregulated status of "enhanced" or "information" service providers, which are a class of service providers separate and distinct from telecommunications carriers. Moreover, the Commission has correctly found that Internet access providers are "enhanced" and "information service" providers, and not "telecommunications carriers."

A. Commission Has Correctly Defined the Statutory Meaning of "Information Services" Consistent With Its Pre-Existing "Enhanced Service" Precedent

The 1996 Act defines "*information service*" as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunication service."[4] This statutory definition is substantially similar to the Commission's pre-existing definition of "enhanced services," found at 47 C.F.R. § 64.702(a). Legislative history also demonstrates that "information services" was intended by Congress to be "similar to the FCC definition of 'enhanced services.'"[5]

Indeed, the 1996 Act defines "information service" in a manner that is at least as broad as the Commission's "enhanced services" definition. For example, the statutory phrase "making

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4 47 U.S.C. § 153(20).

5 S. Rep. No. 104-23, 104th Cong., 1st Sess. at 18 (1995) ("Senate Report").

available information via telecommunications,"[6] is broader than the terms of the "enhanced service" definition, covering all means of making information available to others through this medium.[7] The remaining elements of the "enhanced service" definition are mirrored by other elements of the information service definition. Compare 47 U.S.C. § 3(20) with 47 C.F.R. § 64.702(a). The information service functions of "transforming" and "processing" information correspond closely to "act[ing] on the format, code, protocol and similar aspects of subscriber's information." The terms "acquiring," "generating," "transforming," and "utilizing" information correspond closely to "providing subscribers additional, different or restructured information." Furthermore, the capabilities of "storing" or "retrieving" information cover "subscriber interaction with stored information."

In its rulemaking orders implementing the 1996 Act, the Commission has correctly found that "information services" include those services which have been classified as "enhanced services." As the Commission stated in the Non-Accounting Safeguards Order, "all of the services previously considered to be 'enhanced services' are 'information services'" because the essential elements of both regulatory classifications are identical.[8] In the USF R&O, the Commission again held that "[t]he definition of enhanced services is substantially similar to the definition of information services."[9]

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6 47 U.S.C. § 153(20).

7 See Implementation of Non-Accounting Safeguards of Sections 271 and 272, First Report and Order, 11 FCC Rcd. 21905, 21956 (1996), *aff'd*, Bell Atlantic Tel. Co. v. FCC, 1997 U.S. App. LEXIS 36150 (D.C. Cir. 1997) (the "Non-Accounting Safeguards Order") (information services definition is broader, in some respects, than enhanced services definition).

8 Id. at 21955-56. The Commission did note, however, that the term "information service" may be slightly more broad than "enhanced service." Id. at 21956. That is, additional services are treated not as telecommunications, but as information services.

9 12 FCC Rcd. at 9180.

The Commission's statutory interpretation of "information services" as an unregulated class of services is further buttressed by Section 230 of the 1996 Act. Congress clearly directed the Commission to maintain and preserve its long-standing policy decision not to regulate information services, especially Internet services, by making the policy of the United States and the Commission"(1) to promote the continued development of the Internet . . .; [and] (2) to preserve the vibrant and competitive free market that presently exists for the Internet . . . , *unfettered by Federal or State regulation.*" 47 U.S.C. § 230(b)(1) & (2). As the Fourth Circuit recently held, "Section 230 was enacted, in part, to maintain the robust nature of Internet communication and, accordingly, to keep government interference in the medium to a minimum." Zeran v. America Online, Inc., 129 F.3d 327, 330 (4th Cir. 1997).

B. The Commission Has Correctly Found that "Information Service" Providers Are Not "Telecommunications Carriers."

As a matter of plain statutory interpretation, an "information service" is not "telecommunications." Telecommunications is "the transmission, between or among points specified by the user, of information of the user's choosing, *without change in the form or content of the information as sent or received.*" 47 U.S.C. § 153(43) (emphasis added). The 1996 Act defines "telecommunications" as a form of communication in which the medium adds nothing to the communication -- no change of "form" or "content." When the communications medium, however, enriches the communication with either new information (such as a database) or additional functionality (such as storage capability), the medium is an "information service." The legislative history of the 1996 Act confirms that the "telecommunications" definition "excludes those services . . . that are defined as information services."[10] Moreover, as a matter

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10 Senate Report at 18. This report is an authoritative source with respect to the meaning of the term "telecommunications" because the Senate's version of these provisions prevailed in conference without material change. H. Rep. No. 458, 104th Cong., 1st Sess., at 116, 130-31

(Footnote continued to next page)

of statutory construction, "information service" is defined separately from "telecommunications service," and nothing in the language of either of the terms suggests that one is a subset of the other. The statutory language that "information service" is offered "via telecommunications" further confirms this. Information services are separate from the telecommunications employed to deliver the information services.

Consistent with the 1996 Act, the Commission has found that information and telecommunications services are two separate functional sets of service offerings, and an entity engaged in information service is not a telecommunications carrier unless it separately offers telecommunications in addition to information service offerings. USF R&O, 12 FCC Rcd. at 9179-81; First Report and Order, CC Dkt. No. 96-98, 11 FCC Rcd. 15499, 15990 (1996) (subsequent history omitted) (only an ISP that offers both telecommunications and information services will be treated as if it were a telecommunications carrier for purposes of Section 251 interconnection); Second Report and Order and Memorandum Opinion and Order, CC Dkt. No. 96-98, FCC 96-333 at ¶ 176 (rel. Aug. 8, 1996) (same); Letter to David M. Walker, Direct Dial Audio Corp. from John Muleta, CCB, DA 96-1947, 11 FCC Rcd. 15046 (CCB 1996) (ISP is not a "telecommunications carrier," and so not entitled to Section 251(a) interconnection).

CIX posits that the 1996 Act describes a binary set of communications services. At one end is "telecommunications," such as traditional common carrier telephony, which essentially offer to users a transparent "pipe" with which to send communications to exact locations at the exact time chosen by the sender. The communications service becomes an "information service," however, the service either (a) adds to the message, (b) allows the user to receive new

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(Footnote continued from previous page)

(1996). The Senate's definition of telecommunications and universal service contribution provisions were adopted with minor changes that are not relevant to this analysis. Compare 47 U.S.C. § 3(48) and 254(d) with Senate Report at 79 and 94-95 (S. 652, Section 3(11) and 253(c)).

information based on the user's inputs, or (c) directs or stores the user's message in ways that the user does not fully control. By statutory design, an "information service" is what a "telecommunications service" is not.

C. Internet Access Is an Information Service.

The Commission has consistently held in a variety of contexts that Internet services are "enhanced" and "information" services. *See* Bell Atlantic Telephone Companies, Order, 11 FCC Rcd. 6919, 6937 (CCB 1996); Bell Operating Companies Joint Petition for Waiver of Computer II Rules, Order, 10 FCC Rcd. 13758, 13768 (CCB 1995) (Pacific Bell's CEI plan for "enhanced service" of Internet access is approved); Federal-State Board on Universal Service, Recommended Decision, CC Dkt. 96-45, 12 FCC Rcd. 87, 123 (1996) (the "USF Recommended Decision") ("the provision of Internet service does not meet the statutory definition of a 'telecommunications service'"); USF R&O, 12 FCC Rcd. at 9179-81.

An examination of the Internet access services offered today confirms these Commission decisions. In fact, taken together, Internet services possess all of the enumerated statutory characteristics of "information services." It is this "network of networks" of computers exchanging, storing, and interacting with a vast array of distributed information that has spawned the current information revolution.

An Internet access provider offers its customers access to a wide array of information at sources distributed across the "network of networks." In many cases clients access the Internet through one ISP but visit web sites stored on servers of other ISPs. In the case of the Internet, the Internet access provider's ability to "process[]" and retriev[e]" information from other ISPs holding information databases offers the customer with the "capability for generating, acquiring, . . . retrieving, utilizing . . . information." This offering is logically indistinguishable from the simpler case of a database owner offering a single set of proprietary information for customer access.

A typical Internet exchange is initiated when an end user's computer requests information stored on a computer located and maintained by an Internet provider, generally called a server.[11] This request is broken into small pieces of data called packets. Once transformed, these packets travel to their intended destination where they are reassembled to their original form. Once reassembled, the server connected to the Internet interprets the request and generates a response. For example, an individual may request a weather forecast for Denver, Colorado from a web site dedicated to weather (such as www. weatherchannel.com). The server that maintains this information will generate a response to the request consisting of current weather and travel conditions in Denver. The response will then be transmitted back to the end user.

Further, as the world wide web[12] has flourished, so has Internet "electronic publishing." Internet access providers today "mak[e] available information" and "stor[e]" volumes of information on web-sites at the provider's servers for a wide range of different entities. The decentralized nature of the Internet allows for easy acquisition, utilization, and retrieval of these electronic publications. In addition to storing web sites, ISPs often "generate" their own web sites for their customers with links to favorite Internet destinations as well local attractions and events (e.g., www.southjersey.com).

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11 A server refers to a computer that is running a server program and is maintained by an Internet service provider. The server program locates and extracts the information requested by the end-user. See Glee Harrah Cady and Pat McGregor, Mastering the Internet, p.839 (1995).

12 The world wide web is the network of sites that link to each other. It has developed as a result of the creation of the Internet browser, a program that readily allows for graphical retrieval and processing of information between computers.

In addition, Internet access providers also "store" an array of information for customer "retrieval" directly on the ISP's server. Many ISPs run programs on their servers with caching[13] managers that routinely retrieve information from other servers on the network, and then store those web sites (and the information contained on the web sites) so that their end user customers may obtain more efficient access. The ISPs also store on their servers many frequently requested sites for their clients, and update those sites regularly. Thus, the information is available to the client both through the ISP's server, and through the broader distributed information network of the Internet. The ISP's offering of this wealth of stored information to end-users is, obviously, an "information service."

Finally, e-mail is a "store and forward" component of Internet service that also exemplifies why Internet providers are "information service" providers. E-mail is sent from the originating end-user to the ISP of the recipient where it is stored in the recipient's account. E-mail can be retrieved by the recipient's computer by connecting to its ISP's POP3 server.[14] This process of e-mail retrieval is independent of the telecommunications employed, and is accomplished with any computer with access to the Internet (provided that the software is correctly configured).

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13 A cache is a local copy of a web page made on individual computers. For a further description of push technology and cache management, see <http://www.pointcast.com>, *and*, <http:// www.pointcast.com/products/ intranet/tools/cachingmgr.html>.

14 POP3 is an acronym for Post Office Protocol. This is the language used by an end user's e-mail program and an the ISP's e-mail server.

II. ISPs Are Not Obligated to Pay *Directly* to the USF; As End-Users, However, ISPs Pay *Indirectly* to Support the USF.

Section 254(d) of the Act plainly states that "telecommunications carriers" pay into the USF. 47 U.S.C. § 254(d).[15] As discussed above, ISPs do not provide "telecommunications" and are not "telecommunications carriers," and so ISPs are not obligated to pay directly into the USF.[16] Indeed, Congress highlighted this specific statutory obligation by use of the Section 254(d) title, "Telecommunications Carrier Contribution." Legislative history also confirms this. The Report accompanying the Senate Bill, on which Section 254(d) was based, explains that the statute ". . . does not require providers of information services to contribute to universal service. Information services providers do not 'provide' telecommunications services; they are users of telecommunications services."[17]

It is critical to note that ISPs, as end-users of telecommunications services, ultimately bear the burden of paying for the USF costs. As end-users, ISPs pay the money to carriers which ultimately goes to support the USF. It makes little practical difference whether the ISP itself writes a separate check directly to the USF administrator or the ISP pays for USF costs in the telecommunications services it procures, recovered either in a separate USF "line item" charge to the ISP or by raising the ISP's rates for the underlying telecommunications services. As former Commissioner Chong noted, "*[i]t is not the telecommunications carriers, but the users of*

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15 Section 254(d) also permits the Commission to assess USF contributions on "other provider[s] of interstate telecommunications." For the same reasons discussed herein, ISPs do not fall within that statutory definition.

16 *See also* USF Recommended Decision, 12 FCC Rcd. at 484 ("we recommend that information service providers and enhanced service providers not be required to contribute to [universal service] support mechanisms").

17 Senate Report at 28.

telecommunications services to whom these costs will be passed through in a competitive marketplace." USF Recommended Decision, 12 FCC Rcd. at 560 (Separate Statement of FCC Commissioner Rachelle B. Chong) (emphasis in original).[18]

It is equally important to note that this distinction does not in any way result in a discrimination against "telecommunications carriers" in favor of ISPs. No discrimination results because all parties are treated the same with respect to information service revenues. For example, if a telecommunications carrier also engages in information services, the Commission permits that entity to deduct information service revenues from the total revenue base on which that carrier will be assessed for its USF contribution.[19] Likewise, if an ISP also engages in a separate "telecommunications service" to the public, then it is obligated to contribute directly to the USF based on its total telecommunications revenue, just like any other telecommunications carrier. Under the Commission's existing USF rules, no class of telecommunications carriers is unfairly discriminated against vis-a-vis ISPs, nor is any ISP treated to a special exemption.

Finally, CIX notes that Internet access service largely meets today the statutory objectives for "[a]ccess to advanced . . . information services"[20] because it is an affordable and competitively-priced service. Imposition of an additional USF charge would only raise the cost and the price of the service, making it less affordable for all Americans. Given that ISPs and their customers ultimately pay to support USF today, it seems incongruous with the intent of Section 254 to levy additional charges on ISPs and, ultimately, Internet users.

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18 In addition, proponents of the view that ISPs should pay directly into USF fail to explain how ISPs will not be forced to "double pay" into USF. Because ISPs pay for telecommunications services as "end-users," and thus ultimately pay for the carrier's contribution, it would be discriminatory for ISPs to be charged again for such services.

19 FCC Universal Service Worksheet (Form 457), line 49.

20 47 U.S.C. § 254(b)(2).

III. The 1996 Act Mandates "Competitive Neutrality," Which Would Be Compromised If Only Telecommunications Carriers Can Offer Subsidized Advanced Services

CIX believes that the Commission has the statutory authority to offer USF support for information services to schools and libraries. Section 254 of the Act provides the Commission with ample authority to adopt a program of support for "advanced services," including Internet access and other information services so long as the support is "competitively neutral." The Commission has correctly decided that all Internet access providers, both carrier-based and non-carrier based, should be entitled to compete in the schools and libraries market. A contrary position, that schools and libraries can benefit from subsidies only if services are taken from carrier-based Internet providers, would violate the statutory "competitively neutral" mandate, and would devastate competition in today's Internet market for no public good.

A. Section 254 Authorizes the Commission to Promote Internet Access As an "Advanced Service."

Section 254 gives the Commission clear authority to include Internet access within universal service support for schools and libraries, and mandates that such support be "competitively neutral." Section 254(c)(3) defines "universal service" to include "advanced services" designated by the Commission pursuant to Section 254(h). Congress has mandated that the Section 254(h)(2) "advanced services" support for schools and libraries go beyond the minimum "core" telecommunications services and include "access to advanced telecommunications and information services," in a competitively neutral manner. 47 U.S.C. § 254(h)(2)(A). While some argue for excluding ISP competitors from the schools and library market by regulatory fiat, these arguments misconstrue the plain meaning of the statute and the Commission's rulemaking authority under Section 254(h).

Section 254(c) of the Communications Act specifically contemplates a broader level of USF support for both telecommunications and information services. Section 254(c)(1) articulates a *general* definition that "[u]niversal service is an evolving level of

telecommunications services that the Commission shall establish . . . ." Thus, the Section 254(c)(1) "core" services are telecommunications services. That general statutory definition, however, is then explicitly expanded by Section 254(c)(3), which states: "[i]n addition to the services included in the definition of universal service under paragraph (1), the Commission may designate *additional services* for such support mechanisms for schools, libraries, and health care providers for purposes of subsection (h)" (emphasis added). *See also* H.R. Conf. Rep. No. 458, 104th Cong., 2d Sess. at 133 (1996) (subsection (c)(3) authorizes the Commission "to designate a separate definition of universal service" for public institutions) ("Conference Report"). Thus, the Commission has clear statutory authority to include both "core" telecommunications services and "advanced services" within the meaning of universal service.

Finally, in defining "universal service," Section 254(c)(3) uses the broader term "services," and not the more narrowly defined term "telecommunications services." Subsection (c)(3) broadens the definition of universal service to include Section 254(h) "advanced services" (designated by the Commission pursuant to 254(h)(2)), whether or not those "services" are information services or telecommunications services. Significantly, the Commission has interpreted the statutory phrase "interLATA service" in the same manner -- it includes both telecommunications and information services.[21] The Commission also found that Congress deliberately used the term "telecommunications services" when it intended to exclude information services, and used the broader term "interLATA service" when Congress intended the Commission to adopt more than a telecommunications-specific interpretation. Id. *See also* Second Report and Order and Memorandum Opinion and Order, CC Dkt. No. 96-98, FCC 96-333 at ¶ 176 (rel. Aug. 8, 1996) ("the term 'services' [in Section 251(c) of the Act] includes both telecommunications services and information services"). In the same way, Congress' deliberate

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21 Non-Accounting Safeguards Order, 12 FCC Rcd. at 21933.

use of the broader term "services" in Section 254(c)(3), and not the more narrow term "telecommunications services," demonstrates that Congress did not limit Section (c)(3) "services" to telecommunications services.

Moreover, Section 254(h)(2) provides the Commission with considerable rulemaking flexibility to define what are "advanced services." This statutory language simply does not restrict the Commission from designating information services as "advanced services." Rather, as explained by the Conference Report (at 133):

> the Commission could determine that . . . information services that constitute universal service for classrooms and libraries shall include . . . the ability to obtain access to educational materials, research information, statistics, information on Government services, reports developed by Federal, State, and local governments, and information services which can be carried on the Internet.

As a matter of statutory construction, such a delegation of particularized rulemaking authority "constitutes 'something more than the normal grant of authority permitting an agency to make ordinary rules and regulations' . . . and counsels exceptional deference" to the Commission.[22]

B. The Statutory Mandate for "Competitively Neutral" Advanced Services Subsidies Requires That All Internet Providers, Including Non-Carrier Providers, Should be Eligible to Compete in the Schools and Libraries Market.

Section 254(h)(2) of the Act demands that the Commission continue to implement "advanced services" subsidies to schools and libraries in a manner that is "*competitively neutral*" to all entities that offer those services. While some parties prefer that non-carriers be excluded from participation in the "advanced services" program, this view makes little sense because non-carrier ISPs pay indirectly into USF as end-users of telecommunications. In addition, CIX believes that such a view contradicts the plain statutory mandate for "competitive neutrality." Subsidies for Internet access services that go only to carrier-based ISPs and exclude non-carrier

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22 Fulani v. FCC, 49 F.3d 904, 909 (2d Cir. 1995) (*citing* Chisholm v. FCC, 538 F.2d 349, 357 (D.C. Cir.), *cert. denied*, 429 U.S. 890 (1976)).

based ISPs, would not be competitively neutral. Indeed, a carrier-based ISP subsidy would exclude the vast majority of the over 3,000 U.S. Internet access providers, and would result in significant competitive favoritism for carrier-based ISPs.

Section 254(h) correctly leaves schools and libraries with the flexibility to choose among as many competitive providers as possible. The Commission has met the statutory objectives because *all market providers* of Internet access -- including providers that are not also telecommunications carriers -- are eligible to participate in the advanced services discount program. USF R&O, 12 FCC Rcd. at 9085. The Commission's approach best ensures that schools and libraries optimize their Internet services and minimize costs, both for themselves and for the USF, by allowing them to choose discounted service from *any and all* ISPs competing in the market.

Broad inclusion of all ISPs in the "advanced services" USF program also encourages more efficient pre-discount pricing, which, in turn, will reduce the reimbursement burden on the USF. In light of the $2.25 billion/year cap on USF support of "advanced services," competitive pricing will best facilitate more services to more schools and libraries before the cap is exhausted and/or priority rules force a limitation on the funding program. Given the funding constraints, competitive pricing through inclusion of all ISPs in the market will ensure that the USF funding dollars go further, and to more schools and libraries.

Moreover, if USF subsidies were to exclude non-carrier Internet access providers, then carrier-based Internet access providers would obtain a significant competitive advantage by regulatory fiat. The Internet market is already highly competitive, and the services offered are affordable and inexpensive. USF subsidies, however, have the potential to adversely affect that market. The Commission's current rules properly ensure that its implementation of USF subsidies is "competitively neutral," with a regulatory process that keeps the Internet market operating on economic incentives, and not government incentives.

Finally, CIX notes that a regulatory subsidy that forces schools and libraries to procure Internet services from carrier-based ISPs only would substantially frustrate Congressional and Commission goals for competitive, affordable, and unregulated Internet services. As discussed above, vast numbers of ISPs would be excluded from that market. In addition, the regulation would encourage other ISPs to enter the regulated telecommunications market in order to participate in the schools and libraries program. This, in turn, will result in higher costs for Internet access service (due to regulatory and administrative burdens), fewer providers from which schools and libraries can choose, and, for the first time in this country, a serious federal regulatory incursion into the unregulated, highly competitive Internet market.

Conclusion

In its Report to Congress, the Commission should carefully explain its interpretation of "information services," which is consistent with the 1996 Act. As discussed, ISPs and other end-users bear the ultimate burden of USF costs.

Respectfully submitted,

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